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## **ABSTRACTS SUPPLEMENT**

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## PLENART SESSION (INCLUDING THE MICHAEL MASON FRIZE WINNER)

DIAGNOSIS AND COURSE OF EARLY ONSET ARTHRITIS: RESULTS OF A SPECIAL

EARLY ARTHRITIS CLINIC

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Introduction: In order to shorten time between symptom onset and start of adequate therapy for inflammatory arthritis the general practitioners (GP) of the Leiden area were asked to refer patients with arthritis of recent onset (<2 year duration) to a special early arthritis clinic (EAC). The disease presentation, diagnosis, and disease course of all newly referred inflammatory arthropathies of the EAC have been documented since 1993 and were compared to those of the inflammatory arthropathies referred to the regular outpatient clinic (OPC) in the same period. Methods: 326 cases were registered (165 EAC, 161 OPC) and assessed at first visit and at fixed intervals according to a clinical protocol. Diagnoses were made according to established criteria. Results: The mean time of delay between first symptoms and clinic visit was for EAC 4 weeks and for OPC 15 weeks. An acute onset was seen in 78% of the EAC and 51% of the OPC patients. After 2 weeks a diagnosis could be made in 70%.

Table 1. Diagnoses (in %) after the second visit.

	RA	Psoriat.arthritis	React.arthritis	Sarcoid	Unclass.arthritis	Crystal arthropath	y Other diagnosis
EAC	19	2	8	6	33	20	12
OPC	35	6	6	1	25	9	18

The diagnosis changed in 14% of the patients, mainly unclassified arthritis in to a classifying diagnosis (RA in 30%). After 1 year follow-up (n=180), in 45% of the patients the synovitis had disappeared (7% of the psoriasis, 19% of the RA, 64% of the undifferentiated, 80% of the reactive arthritis and 100% sarcoidosis).

Table 2. Presentation of RA at first visit (in %).

	Acute onset	Mono/oligo	Asymmetr.arthritis	RF+	Erosions
$\overline{EAC}$ (n = 35)	60	40	26	70	26
OPC (n=64)	37*	34	32	50*	33

\* p = < 0.004 OPC vs. EAC (X<sup>2</sup>-test)

Conclusion: An EAC may reduce the referral time of inflammatory arthropathies with  $\pm 3$  months. RA is, even at an EAC, often erosive at presentation. An insidious and/or atypical onset of RA, may prohibit early recognition by the GP.

## THE MAJORITY OF PATIENTS WITH RHEUMATOID ARTHRITIS HAVE EROSIVE DISEASE AT PRESENTATION WHEN MAGNETIC RESONANCE IMAGING OF THE DOMINANT HAND IS

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Introduction. The absence of a significant acute phase response and clinically obvious joint damage in early arthritis delay the diagnosis and initation of appropriate treatment. The presence of erosive disease at presentation and early progression of x-ray changes are associated with a poor outcome in RA. Periarticular bony erosions are the hallmark of RA and standard radiography (SR) detects erosions in about 30% of patients with RA at presentation. Radiographic erosions are an ACR diagnostic criterion for RA but have low diagnostic sensitivity early in disease. MRI has been shown to be superior to conventional radiography in the detection of erosions in the wrist in established RA.

Aims. To determine the frequency of erosive disease in early RA using MRI as the gold standard.

Methods. Patients attending the Leeds Early Arthritis Project with inflammatory symmetrical arthritis, who at presentation or subsequently, fulfilled the ACR criteria for diagnosis of RA were recruited into the study. All patients had been symptomatic for less than 1 year. Standard radiography (SR) of the hands and feet were performed. Coronal TI weighted SE 532/20 (TR/TE) pre and post Gadolinium enhancement and T2 TSE SPIR were performed of the worst affected hand using a 160 Field of view and 2mm slice thickness adopting a 7cm surface coil and a 1.5 T magnet (Philips Medical Systems, Eindhoven, The Netherlands). Radiographs and images were independently evaluated in a blinded manner by two musculoskeletal radiologists and consensus was reached in equivocal cases. Erosions on SR were defined as cortical defects > 1.5 mm and on MRI by lucencies on TI sequences, with T2 sequences demonstrating increased signal within erosion and adjacent bone.

Results. 19 patients were evaluated. SR showed 5 had erosions of the dominant hand and a total of 9 patients had erosions either at this site or elsewhere. Of the 19 cases 18 had definite evidence of erosive disease on MRI. Additionally 14 of the patients with erosions had localised bone oedema adjacent to the erosion. SR documented erosions did not nesessarily corrospond with MRI evident erosions.

Conclusions. This study suggests that RA is an erosive arthropathy at presentation. This has important implications for diagnosis and therapy.